

The first of these is the fact that the
 C_{60} molecule is a truncated icosahedron,
 which is a polyhedron with 32 faces,
 12 of which are pentagons and 20 are hexagons.
 This structure is highly symmetric,
 with a high degree of rotational symmetry.
 The second is the fact that the
 C_{60} molecule is a closed cage,
 which is a structure that is highly
 stable and resistant to chemical attack.
 The third is the fact that the
 C_{60} molecule is a
 highly conductive material,
 which is a property that is
 highly desirable for many
 applications.

The invention is directed to isolated protein fragments of p62 nucleoporin including deletion isoforms and nucleic acid sequences encoding these deletion isoforms. The isolated deletion isoforms disclosed herein include the sequences: SEQ. ID NO.:1 MSGFNFGGTG APTGGFTFGT AKTATTTTPAT GFSFSTSGTG GFNFGAPFQP ATSTPSTGLF SLATQTPATQ TTGFTFGTAT LASGGTGFSL GIGASKLNL NTAATPAMAN PSGFGLGSSN LTNAISSTVT SSQGTAPTGF VFGPSTTSVA PATSSGGFSF TGGSTAQPSG FNIGSAGNSA QPTAPATLPF TPATPAATTA GATQPAAPTP TATITSTGPS LFASIATAPT SSATTGLSLC TPVTTAGAPT AGTQGFSLKA PGAASGTSTT TSTAATATAT TTTSSSTTGF ALNLKPLAPA GIPSNATAAV TAPPGPAAA GAAASSAMTY AQLES LINKW SLELEDQERH FLQQATQVNA WDRTLIENGE KITSLHREVE KVKLDQKRLD QEL; SEQ ID NO.:2 LINKWSLELE DQERHFLQQA TQVNAWDRTL IENGEKITSL HREVEKVKLD QKRLDQELDF ILSQQKELED LLSPLEELVK EQRATIYLQH ADEERQKTYK LAENIDAQLK RMAQDLKDII EHLNTSGAPA DTS DPLQQIC KILNAHMDSL QWIDQNSALL QRKVEEVTKV CVGRRKEQER SFRITFD. The invention is also directed to peptides which are at least 80% identical over their entire amino acid sequence set forth in SEQ ID NO:1, and SEQ ID NO:2 and salts thereof. Pharmaceutical compositions including the polypeptides, their isoforms, and methods for their use activating target genes are also provided.